

Application No.: 10/072,773  
Filed: February 8, 2002  
TC Art Unit: 2623  
Confirmation No.: 2015

REMARKS

The instant Remarks are filed in response to the official action dated February 7, 2006. Reconsideration is respectfully requested.

The status of the claims is as follows:

Claims 1, 3, 6-11, 14-15, 17-18, and 22 are currently pending.

Claims 1, 3, 6-11, 14-15, 17-18, and 22 stand rejected.

The Examiner has rejected claims 1, 3, 6-11, 14-15, and 17-18 under 35 U.S.C. 103(a) as being unpatentable over the combination of Takemoto (USP 6,603,878), Gallagher et al. (USP 6,856,704), Godlewski et al. (USP 5,270,530), and Fu et al. (USP 5,703,965). Specifically, with respect to base claim 1, the official action indicates that none of the Takemoto, Gallagher, and Godlewski references disclose the step of applying a downsampling process to a photographic image to be sharpened such that coarse image data resulting therefrom represents a coarse image with less detail than the photographic image to be sharpened, in which the coarse image includes a multitude of coarse image elements. The official action further indicates that, based upon the teachings of the specification of the instant application and the Fu reference, it would have been obvious to one of ordinary skill in the art at the

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WEINMARTIN, SCHURGEN,  
CACHESIN & LEBOVICI LLP  
TEL. (617) 542-2290  
FAX. (617) 452-0313

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time of the invention to use a downsampled coarse image to determine sharpening regions in place of the reduced detail image (by blurring, etc., as shown in the Godlewski reference and methods mentioned in the Applicant's specification) in order to save on processing time and expense. The Applicant respectfully submits, however, that the official action has failed to establish a *prima facie* case of obviousness, and therefore the rejections of claims 1, 3, 6-11, 14-15, and 17-18 under 35 U.S.C. 103 are unwarranted and should be withdrawn.

It is well settled that to establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the prior art references themselves or in the knowledge generally available to one skilled in the art, to modify a reference or to combine reference teachings. The Applicant respectfully submits that the Takemoto, Gallagher, Godlewski, and Fu references contain no such suggestion or motivation to combine the reference teachings, as suggested in the official action. Further, no evidence has been provided indicating such a suggestion or motivation to combine the reference teachings in the knowledge generally available to one skilled in the art. The Applicant further submits that, if a suggestion or motivation to combine reference teachings cannot be found in the prior art

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WEINGARTEN, SCHURGIN,  
GAMBERINI & LEBOVICI LLP  
TEL. (617) 542-3390  
FAX. (617) 451-0313

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references themselves, then it is improper to look to the Applicant's specification to supply the missing suggestion or motivation to combine the references.

For example, in response to the Applicant's prior amendments to the claims, the official action cites the following passage from the Applicant's specification: "For example, the image data representing the image can be subjected before and/or after the correction to a process which causes a softening, such as, for example, a data reduction process (for example Downsampling process), a low-pass filtering, an averaging process or a gauss filter" (see page 5, lines 26-30, of the application). Based upon the above passage extracted from the instant application, the official action states that it is clear that downsampling and blurring of an image create the same desired effect, and are used to create unsharp masks.

However, as explained above, any suggestion or motivation to combine reference teachings must be come from the prior art references themselves, not from the Applicant's specification. The Applicant respectfully points out that the above passage cited in the official action is part of the Applicant's summary of the claimed invention, which can be found on page 1, line 30, to page 14, line 19, of the application.

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WEINGARTEN, SCHURGIN,  
GAGNEPAIN & LUDOVICI LLP  
TEL. (617) 543-2290  
FAX. (617) 451-0313

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Notwithstanding the impropriety of obtaining the suggestion or motivation to combine the reference teachings from the Applicant's specification, it is respectfully submitted that the above passage from the instant application cannot be taken as an admission by the Applicant that downsampling and blurring of an image create the same desired effect. This is because the Applicant goes on to explain that, in fact, the downsampling and blurring processes do not create the same effect, and that the downsampling process is preferred over the general processes of data reduction and filtering for producing unsharp masks (see, e.g., page 6, lines 1-5, of the application, which includes the statement, "These [unsharp] masks which cause a less sharp image are preferably calculated on the basis of a low-resolution image (coarse image) which was achieved, for example, by Downsampling, whereby especially processing capacity can be saved"). Based upon the description of the claimed invention contained in the instant application, it is clear that downsampling and blurring of an image do not create the same desired effect when used to create unsharp masks, and that the downsampling process is the preferred technique for generating low-resolution images because, e.g., image processing capacity can be saved.

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Because the official action did not rely solely upon the prior art references themselves or the knowledge generally available to one skilled in the art to obtain some suggestion or motivation to combine the reference teachings, the Applicant respectfully submits that a *prima facie* case of obviousness has not been established.

Even if the official action did rely only upon the art of record or the knowledge generally available to one of ordinary skill when searching for the required suggestion or motivation to combine the prior art reference teachings, a *prima facie* case of obviousness still would not have been established. This is because, as indicated in the official action, the downsampling process included in the Applicant's claimed invention, and the image compression/decompression process included in the technique of Fu et al., are performed for significantly different purposes. As described above, the downsampling process is the preferred technique for generating low-resolution images in the Applicant's claimed invention because image processing capacity can be saved (see page 6, lines 1-5, of the application). In contrast, Fu et al. perform image compression/decompression for the purpose of reducing the amount of information to be transmitted when transmitting digitized images (see column 2, lines 31-33, of Fu et

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WEINGARTEN, SCHURGIN,  
GAGNEPAIN & LEBOVICI LLP  
TEL. (617) 542-2280  
FAX. (617) 451-0313

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al.)). Fu et al. neither teach nor suggest performing a downsampling process for the purpose of saving image processing capacity, as described in the instant application.

Because Fu et al. perform image compression/decompression for a purpose that is significantly different from the Applicant's purpose of performing a downsampling process, the Fu reference contains no suggestion or motivation to combine its teachings with those of the Takemoto, Gallagher, and Godlewski references in order to obtain the Applicant's claimed invention. The Takemoto, Gallagher, and Godlewski references also contain no suggestion or motivation to combine their teachings with that of the Fu reference to obtain the claimed invention. The Applicants therefore respectfully submit that a *prima facie* case of obviousness has not been established. Accordingly, it is respectfully submitted that the rejections of claims 1, 3, 6-11, 14-15, and 17-18 under 35 U.S.C. 103 are unwarranted and should be withdrawn.

Even if a *prima facie* case of obviousness were properly established, the Applicant respectfully submits that the suggested combination of the Takemoto, Gallagher, Godlewski, and Fu references would not render claims 1, 3, 6-11, 14-15, and 17-18 obvious. For example, as indicated above, the official action

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WEINGARTEN, SCHUMAKER,  
CAGNINI & LEBOVITZ LLP  
TEL. (617) 542-2290  
FAX. (617) 451-0313

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states that none of the Takemoto, Gallagher, and Godlewski references disclose the feature of applying a downsampling process, as recited in base claim 1. The official action further indicates that the Fu reference discloses a downsampling process, in which an image has its resolution lowered to shorten processing time for transferring the image. In addition, the official action indicates that edge information is sent along with the lowered resolution image and used to sharpen the image (see Fig. 5 of Fu et al.).

The Applicant respectfully submits, however, that such image sharpening performed by Fu et al. is not performed on the compressed image data, but is instead performed on the decompressed image data. This is shown in Fig. 5 of Fu et al., which depicts decimation and compression steps 310 and 312 performed prior to a data transmission step 314, and decompression and interpolation steps 316 and 318 performed prior to a sharpening step 500. Based upon Fig. 5 of the Fu reference, the compressed image data is employed when transmitting an image, and the decompressed image data is employed when sharpening an image. Clearly, the combined teachings of the Takemoto, Gallagher, Godlewski, and Fu references would not suggest to one skilled in this art the subject matter of base claim 1, which recites

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WEINGARTEN, SCHUNK, &  
GAGNERBIN & LEBOVITZ LLP  
TEL. (617) 542-2290  
FAX. (617) 451-0313

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performing a downsampling process not to transmit image data, but instead to change local sharpness of a photographic image. It is therefore respectfully submitted that the rejections of base claim 1 and the claims dependent therefrom under 35 U.S.C. 103 are unwarranted. For at least the reasons provided above with reference to claim 1, the Applicant further submits that the rejections of base claims 14 and 22 and the claims dependent therefrom under 35 U.S.C. 103 are unwarranted.

Accordingly, it is respectfully submitted that the rejections of claims 1, 3, 6-11, 14-15, and 17-18 under 35 U.S.C. 103 should be withdrawn.

In view of the foregoing, it is respectfully submitted that the present application is placed in a condition for allowance. Early and favorable action is respectfully requested.

The Examiner is encouraged to telephone the undersigned Attorney to discuss any matter that would expedite allowance of



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the present application.

Respectfully submitted,

WALTER KRAFT ET AL.

By: 

Charles L. Gagnebin III  
Registration No. 25,467  
Attorney for Applicant

WEINGARTEN, SCHURGIN,  
GAGNEBIN & LEBOVICI LLP  
Ten Post Office Square  
Boston, MA 02109  
Telephone: (617) 542-2290  
Telecopier: (617) 451-0313

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WEINGARTEN, SCHURGIN,  
GAGNEBIN & LEBOVICI LLP  
TEL. (617) 542-2290  
FAX. (617) 451-0313

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